#### Airdrie Academy - Business Management

#### National 5

#### Marketing and Operations Notes



There are 3 units of study in the National 5 course

### Unit 3 – Management of Marketing and Operations

This unit introduces marketing techniques. We will examine the use of marketing techniques to communicate with customers, maximise their customer satisfaction and give organisations a competitive edge. We will also introduce the processes and procedures which can be used to maintain the quality of products and services, and the competitiveness of the organisation

Outcome 1

Apply knowledge and understanding of how the marketing function contributes to the success of small and medium sized organisations by:

1.1 Describing methods of market research and outlining their costs and benefits

1.2 Outlining the stages of the product life cycle

1.3 Describing elements of the marketing mix

1.4 Outlining ways ICT can be used to contribute to effective marketing

Outcome 2

Apply knowledge and understanding of how the operations function contributes to the success of small and medium sized organisations by:

2.1 Describing factors to consider when choosing a suitable supplier

2.2 Describing consequences of over or under-stocking for an organisation

2.3 Describing factors to consider when choosing a suitable production method

2.4 Outlining methods of ensuring high quality in production practices

2.5 Outlining how technology can be used to contribute to effective operational activity

#



# MARKETING

The exchange between sellers (supply) and buyers (demand) for particular goods or services is called a market. A market does not necessarily exist in a single location, nor need it be a real location – products can be bought and sold online.

Successful organisations are those who meet the needs and wants of their buyers (customers) more than their competitors do. To do this, organisations need to know:

* what their customers want (market research)
* who their customers are (target market)
* how they are going to get the right product, to the right person, at the right time and at the right price (Marketing Mix or 4Ps)

## MARKET RESEARCH

“Market research is the art of knowing what the customers want before they do!”

Market research involves the capture and analysis of consumer, competitor and market trend data in order to inform future decision making about the organisation's products and future development plans.

Market Research is an analysis tool. Businesses collect and analyse information from and about customers. By doing this you can then come up with a marketing strategy - a plan for getting new customers, increasing sales, etc. To do this you must carry out market research. Remember - by carrying out market research this helps to reduce some of the risks in business.

### Analysing The Market

There are 2 types of market research - Field (Primary) Research and Desk (Secondary) Research

Field Research

This is research which is carried out by either the organisation itself, or by a marketing company appointed by them. It is new information which is gathered first hand.

Field research may involve one or more of the following:

* Questionnaires/Surveys - to seek people's opinions
* Observation - where possible customers are observed to note their reaction to a product, advertisements, new displays, etc.
* Consumer panels/focus groups - people are brought together in groups to discuss possible products, changes. For example, film studios may film different endings to a movie and ask focus groups to watch them. They will then release the film with the ending which the focus group felt was the best
* Testing the market - by launching a product in a limited area to gain reactions and sort out teething problems before going nation-wide

Results can be quantitative or qualitative.

QUALITATIVE

This type of information gives detail and depth and data is often presented by businesses using “case studies” eg to explain why a product appeals to a particular type of person.

QUANTITATIVE

Measurable - information which can be easily presented as graphs or charts eg age groups who buy most of its products.

### Creating A Prototype

Often before producing a new product, prototypes are made and tested e.g. electric cars. This is a working model which can be used for demonstration purposes to find out what prospective customers think about this proposed new product. Manufacturers do this, because to jump in, make hundreds of models and then try to sell them could prove to be an expensive mistake! The producer must make sure that his product is right and that there is a demand for it. Changes to the prototype may be needed after demonstration/use. Recommendations on price, packaging, size, distribution, may be given.

### QUESTIONNAIRES/SURVEYS

School

survey

One on one (face to face) surveys are carried out either in the street or by telephone (good for quantity data) or longer in-depth interviews (good for quality).

Postal surveys are easily set up but have a low rate of return and so are low in quantity data.

Group surveys - where a panel of people are brought together to comment on a product - produces high quality but low quantity of data.

A survey may be *random* or *targeted*. A random survey is where any person can be asked to take part. A targeted survey is where a market segment is identified and then a set number of people from that segment are interviewed.

Questions in a questionnaire/survey can be CLOSED or OPEN. Closed questions are multiple choice in nature, where the answers are easily analysed but provide limited data. Open questions have no pre-set answers given and are more valuable, but are harder to analyse.

Desk (Secondary) Research

This involves using information which has been collected previously for another purpose - it is secondary data - data already available in a useful form and which is easy to access.

Desk research can be internal or external to the organisation.

***Internal*** data could be obtained from:

* studying trend figures
* examining customer records
* analysing customer complaints

***External*** data could be obtained from:

* Government publications e.g. population census
* Newspaper reports, radio, TV
* Modern technology - CD-ROMs; Internet; commercial databases

There are specialised trade associations linked with most modern industries and these publish statistics and data relevant to their specialised areas. Special reports are often commissioned by market research organisations such as MORI or the Economist.

Remember - quantity of response (data) needs to be weighed against quality

|  |  |
| --- | --- |
| **field research** | **desk research** |
| advantages | disadvantages | advantages | disadvantages |
| It is up to date | Expensive and time consuming to collect | Usually free, or significantly cheaper, to obtain than primary research | May be out of date |
| Can be kept private by the company | Needs a large sample to be accurate, which takes time | more easily accessible than field | Not specifically about the company's product |
| It is relevant and specific to what the company needs to find out | people might be too busy to take part | usually available instantly | Not always relevant to what the company wants to find out |
| Gives the company an advantage over competitors, since they have more insight into the market |  |  | Other companies have access to it as well, so it does not give the company an advantage |

### Problems With Market Research

Some companies have launched new products based on information gained through market research only to find sales don't reach anticipated levels. Why?

Many firms use sampling as their method of MR and there is no guarantee that the views of those sampled reflect the views of the majority of the population -people's behaviour is not always predicable or consistent.

The way questions are framed could influence answers.

Attitude and personality of interviewers can affect the replies people give.

Don’t use a large enough sample group

# MARKET SEGMENTATION

This involves studying the market and attempting to place possible consumers into categories or segments, e.g. sex, age, religion, etc. This group of people is the TARGET market for a particular product or service.

For example, a holiday company might target a particular group e.g. Saga Holidays for over 50's. Why? This gives them a target for their advertising, packaging which helps them sell their product. There are a variety of ways markets can be broken down

Age

Gender

Education

Lifestyle

Location

Religion



Once a segment has been identified, research will be carried out only on that sector e.g. anti-wrinkle moisturising cream will be targeted at *women* initially in the *23-45* age range, then as the product takes off, they may lower the target age to 21 and raise it to 60.

## BENEFITS OF TARGET MARKETING

Can save money - only advertise in places that your target market will use

Product can be tailored to the group's requirements so you are more likely to sell products

# THE MARKETING MIX (4Ps)

MARKETING is about more than just buying and selling goods and services. There are a number of thing which a business has to 'get right' if it wants its products/services to be successful.

There has to be enough customers/consumers who want the products that the business makes.

Price of the product/service must be acceptable to customers. If not, they won't buy it even if they want it.

Customers must know the product/service is available and where they can get it.

For these reasons 4 things are essential when thinking about marketing. These are the 4 P's - know collectively as the MARKETING MIX.

|  |  |
| --- | --- |
| The4 Ps | PRODUCTPRICEPROMOTIONPLACE |

## PRODUCT

This is the good/service offered to customers. Without the product - there is no price, promotion, place! Many businesses believe that a high quality product which proves good value for money is the answer to marketing success. The good/service which is designed/developed must:

* match consumer wants
* be of acceptable quality
* be available in the required quantity
* have a good reliable after sales service

The product's name is important too - it should be relevant to the purpose and be easy to pronounce and remember. E.g. Harpic; Elevenses

The product's packaging is also important. It has its practical uses - it protects the product. The shape and size of the packaging is important, along with its colour and brand name - they all help attract customers. Packaging can also give the quality signals to the customer e.g. Gaultier perfume

### STAGES IN CREATING A PRODUCT

Different departments in the company would be involved in this development work eg production, marketing, finance, etc - all involved before they make the decision to go ahead with to the last stage.

Product selection

Developmental analysis

Research & Development

Test Marketing

Product Launch

It has to be remembered that after the launch of a product, it goes through various stages in its life cycle.

## PRODUCT LIFE CYCLE

Every product launched follows this cycle - some go through every stage very quickly and some take a long, long time to go through it, staying in the maturity stage for years.

For example, fads such as Teletubbies went through the life cycle very quickly, whereas Coca Cola is still selling well and constantly adapting with new versions.

Introductory stage

At this stage the new product is launched into the market place with lots of advertising razzmatazz; introductory special offers, etc. to tempt the public into trying their product.

Costs are very high in the introductory stage due to the heavy advertising.

Competition will be very little, if any, as it is a new product

Sales will be very slow to establish as customers begin to realise there is a new product available

Growth Stage

Rapid Growth Stage - The product is launched successfully; the product is establishing a market and sales take off in a big way, usually in a short period of time.

Costs are still high although not as high as in the introductory stage. The product will still be getting advertised

Competition may be starting, particularly if it is a successful product

Sales will be growing quickly as customers try the product and perhaps repurchase

Maturity Stage

This is where the product is experiencing its top sales figures; it has reached the 'top' so to speak in terms of sales. The expression often used is that it has 'peaked'. Many products can stay at this stage for years e.g. KitKat. However, by this stage other manufacturers will have entered the market; they will not have had the same developmental costs, so they are likely to be highly competitive in price which will take sales away from the original product.

Costs usually low, periodically there may be advertising or some promotion to encourage sales

Competition will be everywhere

Sales will be stable - no fast growth but stable.

Extension - at this point, the organisation may start to develop the product further using extension strategies to keep sales high

Saturation Stage - Sales stop increasing, they may maintain their position in the market place, but basically there is no way they will increase. There is no room for growth.

Decline Stage - As the new products begin to appear on the market, customers turn to the newer products, believing them to be better, more modern, etc.

Obsolescence Stage - The decision is reached - stop producing. Stocks will be sold off, normally at a reduced rate.

Normally a company will have themselves introduced a new product into the market place by the stage of saturation, so that as this product declines, another is rising.

## EXTENDING PRODUCT LIFE CYCLE

When an organisation decides to extend the life of a product, it can choose several options. It can change the price, promotion, place or the product itself.

For example,

* Extend advertising, change their promotional ideas e.g. British Airways
* Change their packaging and give themselves a new image e.g. Lucozade used to be given when people were ill, now it is a sports drink
* Special deals e.g. buy one, get one free
* Widen the product range e.g. Harry Potter, a book is made into a film, is made into a video, into a DVD, posters, toys, calendars, diaries, bed covers, etc.
* Change the image and target a new market segment e.g. Landrover have moved away from their country image to encourage city dwellers to buy with the Evoque
* Diversifying a product\* e.g. Mars - original Mars Bar, Extra large Mars Bar, Snack Size Mars, Mini-Mars, Ice-cream Mars, Mars Bars in milk chocolate, dark chocolate, etc.

\* Diversification is easier with a product that has strong branding

## BRANDING

Branding is used to identify a particular product, range of products or company to try to encourage brand loyalty amongst its customers. A brand can be identified by a logo, name, colour scheme. Branding plays an important part in promotion. Products are given names (brands) to make people buy them. Many products are bought because of the name - not the quality, materials, etc., but because that name gives them a certain image. This can be seen especially in sportswear, technology, soft drinks, etc. The producers decide on the image they want to portray e.g. up-market and expensive and exclusive, etc. Price is based on this.

Because the item bears a 'brand' name doesn't mean that it is necessarily better quality, more hard wearing etc., than a non-branded product, but these goods are promoted in such a way that you are made believe that they are. Some people are so into' branded goods that they won't buy anything without a brand name being attached!

Brand names can be widened to cover unrelated products e.g. Virgin - it covers everything from planes and trains to cola. Macdonald's is a brand name found all over the world and you know that even if you walk into one of their stores in Paris or Rome and buy a Big Mac you will get the same item as in Dunfermline. You know what to expect with that brand name

Advantages of branding

* it encourages brand loyalty
* easier to introduce new products
* can associate celebrities (endorsement) with the brand to encourage sales

Disadvantages of branding

* if problem occurs then the whole product range can be tarnished e.g. Findus and the horsemeat scandal
* expensive to get and maintain a brand image

### Own Brands

Many of the large supermarkets have introduced their own branded products. They are often very similar in packaging, colours and sizes to the High Street brands which are available on the same shelves and try to tempt customers away from the normal brands. For example Tescos Finest and Sainsburys Taste the Difference range.

## PRICE

The price must be high enough for businesses to cover their costs and hopefully make a profit. The price must be low enough that consumers can afford to buy it!

For Sale

### Pricing strategies

***Destroyer (predator) pricing***  *-* undercutting a competitors prices would get sales, but by how much, depends on the product. Sometimes they will deliberately undercut competitors to destroy the competition.

Where image is important, a lower priced product might give the wrong image e.g. cheap & nasty. The organisation has to strike a balance in pricing policy. Prices need constant review.

***Penetration Pricing*** - This is when a new product/service is launched with a low price to encourage sales and build up customer loyalty. Once the product has gained a market share then the price will be go up.

***Special Offers*** - These can be done is a variety of ways e.g. 3 for 2 offers as per Boots; free gifts; etc. - they generally happen when there is a slump in sales of a product or after a period where peak sales have been occurring and they are trying to keep them up.

***Skimming*** - This takes advantage of the uniqueness of a new product. It is given a high price because firms know that when products are produced in small numbers, they are often of a high quality and give the buyer an 'up-market' image. It often occurs when a new technology product is launched onto the market and enthusiasts are willing to pay a high price just to get it e.g. Sony launched Playstation. These high prices cover development costs. Later the price will be dropped to attract a different segment of the market.

***Loss Leaders*** - Supermarkets are the champions of loss leaders! They may have trolleys or display stands in prominent places in the store where items are sold at cost price to attract customers. The idea behind this is that whilst customers will buy these loss leaders, they will also purchase other products whilst in the store. e.g. Safeway Savers.

P***rice Discrimination*** - A policy of charging different prices to different people for the same product. Rail companies and airlines use this system all the time. E.g. On the same train you could have someone who has paid with their student railcard; another with a supersaver fare; others who have pre-booked on a first class ticket; a family railcard; season ticket holders. All will have paid a different price for the same journey.

***Cost plus pricing*** - you work out the actual cost to make your product and then decide on how much profit you want to make on each product you sell.

Price must cover costs - that is why penetration pricing, special offers, etc. are only used in the short-term. Money would be lost in the long term.

## PROMOTION

Promotional activity *supports* the sale of goods and services.

The seller has to make sure that people know about their product/service. The most efficient way to do this is by using advertising, the media and sales promotions.

Adverts are used to:

* persuade people to buy
* to change people's attitudes or views e.g. drink drive campaigns
* to make people think better of an organisation or business e.g. elections
* to simply provide information e.g. business closing down

Adverts attract attention to the product - other forms of promotion can then take over e.g. special offers

These are used by different types of business everywhere. From furniture shops, departments stores, supermarkets, catalogue companies, whatever, they all use these types of promotions to part us from our hard earned cash!

competitions

nothing to pay for 3 years

interest free credit

window displays

3 for 2 offers

blue X days

discounts

These are all used for one reason - to boost sales!

Where do you advertise?

|  |  |
| --- | --- |
| TV | Billboards |
| Radio | Magazines |
| Newspapers | Vehicles, leaflets, etc. |

It is important to choose a correct media and this will depend on a number of factors:

* Which market segment does the business want to target?
* Are customers local, national or global?
* What special qualities does that branch of the media offer?
* How much money can the business afford to spend on advertising?
* What message does the business want to get across?
* Timing - regular, seasonal, new product?

Another question the business must address is, do they use an agency or do they produce their advert in-house? An agency is likely to employ specialist staff and have better contacts but they can be expensive depending on the media to be used. By using an agency you allow the business to concentrate on what it does best - producing the goods! In-house means that the company does it themselves using their own staff. This is fine if they have the necessary expertise – but it doesn’t always work.

What is the difference between advertising and public relations (PR)?

Mainly cost! Advertising is paid for, PR tends to come free. Most firms will organise their own PR. Sending out press releases, appeals for funds, charity donations, stories about a famous personality visiting, awards won, etc. all hoping that they will be printed or broadcast free of charge. (PR gurus such as Max Clifford, offer a PR service to individuals and basically represent them in such a way that he strikes deals with newspapers, magazines etc. and sells them 'exclusives' on the individuals he represents.)

## PLACE

This is the place where the customer receives the product or service.

Organisations can distribute products to customers directly (straight from themselves) or they can use other intermediaries such as wholesalers or retailers (shops). The method selected is the **CHANNEL OF DISTRIBUTION**.

PRODUCER

 WHOLESALER

RETAILER

CUSTOMER

PRODUCER

RETAILER

CUSTOMER

PRODUCER

CUSTOMER

Direct Marketing

This system cuts out the wholesaler and retailer. They try to link with targeted customers through:

Direct Mail/ Catalogues

Press Adverts

Telephone Calls

Internet

Teleshopping

Often used for services eg Insurance

Regional Distribution Centres (RDC's)

Big supermarkets have their own regional distribution centres throughout the country. Manufacturers and suppliers deliver their goods to the RDC's the goods are then delivered as required to all the chain's supermarkets in the region.

eg Asda has a large RDC at Grangemouth which supplies the Asda stores in our area

Wholesaler buys in bulk or large quantities from producers and then sells and delivers them in smaller quantities to retailers. There are over 100,000 wholesalers in Britain

eg Booker Cash & Carry

The best method is determined partly by cost and location of the business as well as:

The type of the product - some products require specialist knowledge which cannot be obtained in a retailer therefore they come direct from the manufacturer

The type or size of the market - if an organisation is looking to gain as many sales as possible, they may choose to sell through a wholesaler to get access to a wide range of people, or they may choose to sell straight to the big retailers

The physical distribution of the product to either the customer, wholesaler or retailer can be by:

* road
* rail
* sea
* air

Each of these methods has advantages and disadvantages. The method chosen will depend upon:

* the nature of the product - frozen products have to be sent in a refrigerated lorry
* the distance - sending goods overseas is unlikely to take place by rail because of the length of time it would take
* the size of the product - bulky items are likely to go by rail or sea instead of road due to their size
* how quickly it is required - if your customer needs a product quickly then sea is unlikely to be used as it is one of the slowest methods

## FACTORS AFFECTING LOCATION

If you locate successfully you can achieve:

Higher sales

Lower costs

Rising profits So the decision about where a business should locate is an important one. A host of factors must be considered:

* What type of product does it plan to produce/sell?
* Close to source of raw materials?
* Closeness to the market?
* Skilled workforce?
* Closeness to suppliers?
* Good infrastructure in place – road, rail, air?
* Support available (funding/training/etc.)?

Businesses should consider the costs/benefits of different locations. For example: location costs might include:

* The cost of renting or purchasing premises
* Rates e.g. local Government charges
* Wages – they differ in different parts of the country/world
* Transport costs – the cost of bringing in raw materials and of delivering goods to customers

Location benefits might include:

* Market – some areas have more people and businesses than others e.g. South East V Highlands
* Wages – some areas have lower wage rates than others
* Rates and rents – some areas offer low business rates or have ‘special’ location deals
* Premises – some areas have lower land prices and/or can provide land for future development
* Transport costs – some areas have better transport links than others
* Financial support – local Government and national Government and EC may offer special grants if they locate in certain areas of the countries (usually where there is high unemployment)
* the infrastructure in each location is also important

Business must weigh up costs V benefits for each location before a final decision is reached.

### INFRASTRUCTURE



This is the term used to describe the system of structures and facilities which makes business activity easier.

|  |  |
| --- | --- |
| Roads | Railways |
| Airports | Hospitals |
| Schools/Colleges | Communication networks |
| Utilities e.g. gas, water, electricity |  |

They are important because:

They allow products and materials to reach the customer quickly

They provide easy access for customers

Can make travel to/from branches easier and quicker

The term ‘nearness to markets’ can refer to local customers or even further afield such a Europe.

Schools and hospitals are important as they provide education; health services etc. for customers and employees. Utilities such as gas, electricity, water are obvious, but it cannot be taken for granted that they are available everywhere! For example there is no natural gas in Crook of Devon, Powmill, areas.

## GOVERNMENT ASSISTANCE

The Government may offer financial and other assistance to organisations to help them to set up and also to help some areas regenerate.

They may offer:

Building premises and leasing at low rents to small businesses

Give lower taxes and reduce regulations in Enterprise Zones (inner cities)

Money allocated to regenerate derelict sites

Give Regional Selective Assistance to manufacturing and service industries to encourage job creation

Provide training through Local & Enterprise Councils (LECs)

## LOCAL GOVERNMENT ASSISTANCE

Promoting new business is a major objective for local councils. Assistance is given in areas of finance, planning, advice. They encourage new firms to set up in their areas.

Advertising their area on the Internet

Giving details to business about getting grants and aid

Giving information to businesses about local sites and premises

Providing re-location grants

Providing free rent & rates for some properties in some areas for specified periods

Giving loans with reduced interest charges

Job creation grants

# EUROPEAN UNION

Organisations which locate within the EU receive many benefits such as:

There is no limit to quantity of goods/services they can sell within any member EU country i.e. they have no quotas

No customs duty when they sell goods or services in other EU states

Free movement and larger supply of both workers and capital

Lower costs of production

Larger choice of suppliers

European wide protection of patents and trademarks

Reduction in competitive business distortions – tax differences reduced; restrictive practices prohibited, subsidies ended, etc.

Increased competition encourages increased business efficiency

Simplified procedures in movement of goods

Disadvantages of locating in the European Union are:

Shortage of labour skills

Language barriers

Distance difficulties

Bottlenecks in production due to increased demand

### Regional Policy

They aid businesses in poor regions of Europe. Referred to as ‘structural funds’.

|  |
| --- |
| European Regional Development Fund (ERDF) – provides financial aid and assistance for business involved in infrastructure & telecom projects |
| European Social Fund (ESF) – finances projects designed to improve training – solves labour supply problems |
| European Agricultural Guidance & Guarantee Fund (EAGGF) – finds job opportunities in farming areas |
| European Investment Bank (EIB) – offers loans at good rates to firms setting up in depressed areas |

These structural funds have assisted funding in several areas of Scotland including:

* Edinburgh By-pass
* Edinburgh Women’s Training Centre
* Feguslie Park in Paisley
* Whitfield in Dundee
* Extensions to rail networks in Strathclyde
* Time Capsule Monklands
* Scottish Maritime Centre in Irvine

##

## MULTI-NATIONALS

These are companies that have their headquarters in one country but also have bases for manufacturing production, assembly or sales in other countries. These companies are *VERY* large and usually *VERY* profitable. You *cannot* describe it as a business that sells goods in more than one country.

They are some of the biggest organisations in the world. They include:



Shell, BP, Exxon

British American Tobacco

General Motors, Nissan

Why do firms become multi-national?

Companies can get extract raw materials which the firm may need for production or refining e.g. oil from Saudi Arabia is needed to supply oil refineries in USA

They produce goods in countries with low costs as regards factors of production e.g. low wages e.g. Nike sports clothing is produced in SE Asia because wages are so low compared to Europe and America

They can reduce taxes by locating in countries with low rates of taxation and export from there

To produce goods nearer the market to reduce transport costs

To avoid barriers to trade put up by countries to reduce imports e.g. EU put up trade barriers in that unless a company produces them in Europe they are restricted to amounts they can sell

To expand into different market areas to spread risks - if sales fall in one country the business can move to another country where sales are rising

There may be financial incentives to locate in certain countries e.g. Southern Ireland, UK

So businesses gain from becoming multinational.

What advantages do they bring to the countries in which they operate?

* Jobs are created so reducing unemployment levels
* New investment in buildings and machinery and infrastructure
* Much of the output may be sold abroad so increases exports of the country, and imports could be reduced as more goods are made in that country
* Taxes will be paid by the multi-nationals in that particular country so increasing the Government's funds

What disadvantages do they bring to the countries in which they operate?

* The jobs are often unskilled assembly line tasks
* They may force local firms out of business because they are more efficient and have lower costs than local firms
* Profits are sent back to the multinational business 'home' country and not in the host country
* They often use up scarce and non-renewable primary resources in the host country
* They may have too much influence on the Governments of these countries and the economy could be dependent on these multi-nationals
* Pollution and damage to the environment

Businesses gain from becoming multi-national:

Low costs of labour, land, etc

Raw materials are obtained

Low taxes

Avoid trade barriers

Can produce nearer to markets

Spread risks

Advantages to the multi-national company

Advantages to the country in which multinationals operate:

Create jobs

New investment

Taxes paid to Government

Increases exports

Can create competition

Multi-national Co

Imports reduced

Disadvantages to the country in which multinationals operate:

Can destroy local firms

Unskilled jobs

Multi-national Co

Exert too much influence on Government & economy

Profits flow out of country

Use up scarce resources

Pollution & damage

THE PRODUCTION PROCESS

Every organisation produces a product or service. They all take resources and input them into a process to achieve an output e.g. in the production cycle of a carpet – it starts of its production cycle as a sheep! This shows the production process of a company producing yarn to go into the carpets.

# INPUT

Raw materials

# PROCESS

Using workers & machines

# OUTPUT

Quality yarn to produce carpets

#

# METHODS OF PRODUCTION

There are 3 main methods used in the production of goods – job, batch and flow.

### JOB PRODUCTION

These techniques are used when the item is specially designed – a one-off, or built to order eg custom made bedrooms; luxury yacht. One job is done from start to finish.

## Advantages

* production matches customer’s exact requirements ie there is a personal touch
* high quality – skilled workers produce quality work
* workers are more highly motivated – they gain a sense of pride

## Disadvantages

* labour intensive and highly skilled – leading to higher wages cost
* less chance of automation
* this is an expensive production technique, costs not recovered until product finally paid for
* holding stock costs money
* time delays – cleaning equipment before next batch can start
* reduced motivation & boredom – employees doing same job all the time

### BATCH PRODUCTION

These are used when groups of products are made at the same time eg bread; whisky, paint

##### Advantages

* workers can specialise in one particular area
* lower costs per production unit as less skilled workers are likely to be required

##### Disadvantages

* holding stock costs money
* time delays – cleaning equipment before next batch can start
* reduced motivation & boredom – employees doing same job all the time

### FLOW PRODUCTION (LINE PRODUCTION)

The product is passed down a line with a series of operations being carried out to complete the process. eg car manufacturing

##### Advantages

* large numbers are made at one time – company therefore benefiting from economies of scale
* a chance to use machines (automation) which brings down wages costs

##### Disadvantages

* set-up costs are high since lots of equipment needed
* employee motivation lower (boredom) – monotonous jobs
* interdependence – if one part of the production line goes down, the rest of the line is affected

## MAN VERSUS MACHINE

Over the last 30 years things have changed greatly due to the impact of technology. Goods can now be produced by machines controlled by computers rather than by people. By using technology more and more, the number of people employed in production has fallen considerably with more capital investment being required.

When producing goods or services, a business must strive for efficiency, quality and cost.

Strengths and weaknesses of humans and machines:

|  |  |
| --- | --- |
| C:\Users\Matt\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\M0L36RAQ\MC900433933[1].pngHumans | C:\Users\Matt\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\M0L36RAQ\MC900197599[1].wmfMachines |
| **Strengths** |
| skill brainpower problem solving interaction adaptability | tirelessness accuracy consistency lower labour costs speed  |
| Weaknesses |
| wage costsinterdependence time limits physical limits | breakdowns maintenance costs lack of flexibility no personal contact |

When looking at job production, we look at the individual nature of the products – sometimes they depend on highly skilled manual input, others a combination of human and machines. If a machine can produce the goods efficiently and effectively, then use the human labour to support the machine.

The service industry tends to be labour intensive e.g. you need people to cut hair according to people’s wants – a computer cannot do this! However even in the services industries the impact of technology has been felt. e.g. software packages can deal efficiently with financial record keeping; wages can be transferred quickly from a company’s bank account to an employee’s bank account, etc., replacing the need for people who used to do all of these jobs manually and taking time to do it. Banks are a good example to use of how technology has changed their service industry.

Mechanisation means workers are replaced by machine, but workers still play a part in production.

Automation involves replacing workers fully by machines. The machines are programmed to work alone with minimum supervision. i.e. robots.

# MAINTAINING THE QUALITY OF PRODUCTS

Customers want good quality as well as value for money. In recent years consumers have become increasingly aware of what they want. However, it often costs more to produce a better quality product than a cheaper one and this increases its price to customers.

Therefore, businesses must decide on the type of consumer they hope to sell to e.g. value for money only or value for money and quality. It is possible to have a low quality product selling at a low price and a similar product of a higher quality selling at a higher price. Both products may be profitable to the company because they will be selling in different sections of the market. For example, Kellogs produce a range of cereals. Some may be more expensive to buy but contain more expensive ingredients. e.g. Corn Flakes v Alpen. The business may also produce less expensive cereals which contain less expensive ingredients. It can be worthwhile for a business to produce a range of products with each being sold to different types of customers. A company must identify the market group to which it hopes to sell and then match the quality of product to the cost to optimise sales in that market.

## QUALITY CONTROL

Quality is remembered long after the price is forgotten

Gucci (family slogan)

This may be obvious, but quality is the key to success in business, for example, if you dine in a restaurant and receive poor service you might tell 12 people about your negative experience – if you receive good service, you might only tell one person! To ensure that your business maintains a good reputation, ‘getting it right’ is the key issue.

Depending on the nature and type of your business, you may adopt certain quality checking procedures and processes.

|  |  |
| --- | --- |
| Total Quality Management | Quality Circles |
| Quality Improvement Teams | Customer Feedback Schemes |
| Benchmarking | British Standards Institution (BSI) |
| Ensuring staff are well trained | Purchasing quality raw materials |

### Total Quality Management

In this model, you regard everyone in the chain – every person involved in the production of a good – as a customer. Everyone in that chain is aware of their responsibility in terms of quality. Clear definitions of quality are set out at each stage in the production process and all staff are aware of the objectives in relation to quality. Before they pass on a product to the next stage, they will be satisfied that they have got it right.

### Quality Improvement Teams

They could be e.g. teams who continually test products to see if improvements can be made. Marks & Spencers have taste panels who continually test the food products that they sell, to see that quality is maintained or taste products after slight variations have been made to see if quality can be improved.

### Quality Circles

Again, we have looked at these before. Usually linked with Quality Assurance. This is a working group made up from a combination of management and staff with the objective of improving whatever they do. This joint group will continually try to improve how things are done – this may result in lower costs and well as improved quality, therefore leading to higher profits.

### Customer Feedback Schemes

By finding out what the customer thinks, amendments can be made if necessary, ensuring that you are always in touch with the thoughts of your customers. This could be done by continually surveying customers, questionnaires, etc. The Internet is a good way of gaining customer information – ‘state your opinions of our service’ are offered on many sites.

### Benchmarking

This method is used in improving quality of production or service by copying the best techniques used by another organisation regarded as the ‘best’. A company which is the first to use benchmarking in its market will be regarded as the ‘benchmark’ standard that others will try to achieve. They set the standard others will aim for.

### British Standards Institution

The BSI is an organisation that produces national standards for certain products. When a business produces a product and proves it meets the agreed quality and safety standards specified by the BSI, the product will be marked with a BS Kitemark symbol. This gives consumers confidence that they are buying a quality product. E.g. At the petrol pump – BS Standards BS EN 228 is displayed on pumps where unleaded fuel meets agreed quality standards.

### Other Trade Organisations

Certain trade organisations introduce standards and logos that can be displayed on products that have met agreed quality standards that they have specified. Quality Assurance stickers are displayed on meat products that have produced to a certain industry standard.

# SUPPLIERS

One of the most important aspects of producing a quality output is having quality inputs into the organisation.

Suppliers must be carefully chosen to ensure that they give the best product, at the right price and can deliver the amount required when it is required.

The organisation must consider the following facts about a supplier before making their decision:

* Price – one of the most important considerations. If the price is too high then the organisation will need to sell the final product at a high price which might affect sales. If the price is very low, this could indicate a lower quality product
* Location and transport costs – this has 2 implications for a business. If the organisation wants to be seen as environmentally friendly, then they should choose local suppliers which will not have a large carbon footprint. Also they may wish to be seen to be supporting their local community and buying local produce. For example, supermarkets purchase items globally and deliver across the UK but the local butcher will proudly display signs stating that they buy from local suppliers
* Lead time – this is the time taken for the goods to be received once they are ordered. If there is a long lead time, then there could be problems running out of supplies if there is an unexpected rise in demand
* Quality – this quality of the input affects the quality of the output. For an organisation with a high quality image, this will be extremely important
* Reliability – if the supplier is not reliable and fails to deliver what is required when it is required, then it can impact upon the reputation of the organisation if they run out of stock and are unable to meet customer orders

# STOCK MANAGEMENT

Stock management is concerned with trying to buy or hold levels of stock which will allow production and sales to take place, whist reducing the need to hold and pay storage costs for large amounts of stock

An organisation must decide if it is going to hold stock to ensure production can continue, or if it is going to adopt Just In Time (JIT) which means that stock is delivered at the point when it is required. There are advantages and disadvantages to both methods.

JIT advantages

* Improved cash flow due to fewer stocks being held
* Lowered stock holding costs due to decreased stocks and storage space
* Less stock wastage, obsolescence and damage
* More profits due to lower prices for consumers

JIT disadvantages

* It can be difficult to respond to changes in demand due to reliance on others
* Higher administration and transport costs as multiple deliveries must be made
* No opportunity for economies of scale due to continuous small purchases
* Requires reliable suppliers to prevent problems, shortages and lost sales
* Requires skilled workers to prevent errors, shortages and lost sales

Advantages of Holding Stocks

* You can always meet unexpected demands
* You are not reliant on the supplier
* Economies of scale such as bulk buying are available
* Lower delivery and administration costs

Disadvantages of Holding Stocks

* Cash can be tied up in stock which affects cash flow in the organisation
* You need to pay for costs of storage – warehouse rent, security staff costs, administration costs
* There could be high stock wastage, obsolescence and damage

If an organisation decides to hold stock then it must carefully determine the correct levels of stock which it needs to hold to allow production to continue whilst minimising costs.

If you overstock – have too much stock – then you run the risk of the stock becoming obsolete, stolen, deteriorating whilst in storage. This can also affect your profits as your storage costs will be high. On the other hand, under stocking – not having enough stock – can lead to the organisation being unable to meet customer demands which can affect your reputation and ultimately profits as customers take their business elsewhere.

A stock control chart is a graphical illustration of a simple approach to stock management over time. This ‘saw tooth’ shaped diagram is normally shown as if sales were steady throughout each month. Whilst this oversimplifies the situation for many businesses, the principles can be adapted to most situations.



*Maximum stock level* – this is the maximum amount of stock a business would wish to hold. This could represent enough stock for a month or a week, it might be as much as the warehouse has space for, or it might depend on the order size needed to qualify for a quantity discount – known as the Economic Order Quantity (EOQ).

*Re-order level* – this acts as a trigger point, so that when stocks fall to this level, the next order should be placed. This helps take account of fluctuations in sales levels over time. When an order is placed, there is a lead time that the supplier needs to meet that order. Ideally this new order will arrive just before stocks fall below the minimum stock level.

 *Lead time* – the amount of time between placing the order and receiving the stock.

*Minimum stock level* – this is the minimum amount of product the business would want to hold in stock. Assuming the minimum stock level is more than zero, this is known as buffer stock.

*Buffer stock* – an amount of stock held as a contingency in case of unexpected orders so that such orders can be met and in case of any delays from suppliers.

# ETHICAL AND ENVIRONMENTAL

Today many organisations are changing to become more environmentally friendly and to become more ethical in their approaches to business. For example, many clothing manufacturers who have their products manufactured in other countries such as India and Pakistan were accused of using child labour and sweat shops to produce their goods. Following customer protests, companies such as Nike carried out investigations and promised to alter their processes to ensure that all employees who manufactured for them were working in reasonable conditions for a living wage.

Organisations are also facing pressures from customers to become more environmentally friendly. They are trying to do this by:

* Minimising packaging
* Offering recycling facilities within shops
* Asking customers to reuse plastic bags
* Selling bags for life to reduce the requirement for plastic bags
* Sourcing goods from ethical sources and trying to minimise their carbon footprint

Do you think that the benefits of recycling and reducing packaging outweigh the costs of introducing these processes?